

What is claimed is:

1. An apparatus, comprising:

a sensor housing adapted for mounting one or more sensors;

5 one of a plurality of different sized coupling members which includes one or more windows for the one or more sensors; and

wherein the sensor housing is adapted to couple with the one of a plurality of different sized coupling members to accommodate various sized conduits.

10 2. The apparatus of claim 1, wherein the sensor housing comprises a main body and at least one connecting member extending from the main body, wherein each of the at least one connecting members is adapted to hold the one or more sensors.

15 3. The apparatus of claim 1, wherein the one of a plurality of different sized coupling members conforms to a conduit.

4. The apparatus of claim 2, wherein the main body of the sensor housing includes a housing release mechanism, wherein the housing release mechanism is adapted to detach the sensor housing from the coupling member once they are coupled together.

20 5. The apparatus of claim 1, further comprising a closure mechanism coupleable to the one of a plurality of different sized coupling members.

25 6. The apparatus of claim 5, wherein the sensor housing, the one of a plurality of different sized coupling members, and the closure mechanism are each made of a biocompatible material.

7. The apparatus of claim 6, wherein the sensor housing, the one of a plurality of

different sized coupling members, and the closure mechanism are each made of a biodegradable material.

5 8. The apparatus of claim 7, further comprising a sensor release mechanism for releasing the one or more sensors from the sensor housing, wherein the one or more sensors are removable leaving the biodegradable material in vivo.

10 9. The apparatus of claim 1, wherein the sensor housing is made of a harder durometer material than the one of a plurality of different sized coupling members.

10. The apparatus of claim 2, wherein the main body of the sensor housing includes positioning elements to aid in placement and retrieval of the sensor housing.

15 11. The apparatus of claim 10, wherein the positioning elements comprise a first array of dimples and a second array of dimples.

12. The apparatus of claim 11, wherein the first array of dimples and the second array of dimples comprise a circular pattern.

20 13. The apparatus of claim 10, wherein the main body of the sensor housing further includes a housing release mechanism, wherein the housing release mechanism is adapted to detach the sensor housing from the coupling member once they are coupled together.

25 14. The flow probe of claim 10, wherein the one or more sensors are one or more ultrasound transducers and the one or more windows are acoustically transparent.

15. The flow probe of claim 14, wherein the one or more transducers comprise one

or more piezoelectric transducers.

16. The flow probe of claim 1, wherein the one or more sensors are ultrasound transducers and the windows are acoustically transparent.

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17. An apparatus, comprising:

a coupling member for a flow probe, wherein the coupling member is adapted to mate with a sensor housing for a flow probe, wherein the sensor housing is adapted for mounting one or more sensors;

10 and wherein the coupling member includes one or more windows for the one or more sensors.

18. The apparatus of claim 17, further comprising a closure mechanism coupleable to the coupling member.

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19. The apparatus of claim 18, wherein the coupling member and the closure mechanism are made of a biocompatible material.

20. The apparatus of claim 18, wherein the coupling member and the closure mechanism are made of a biodegradable material.

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21. The apparatus of claim 17, wherein the one or more windows are transparent to the one or more sensors.

25 22. A sensor housing for a flow probe, comprising:

a main body adapted to mate with one of a plurality of different sized coupling members to accommodate various sized conduits;

at least one connecting member extending from the main body, each of the at

least one connecting members is adapted to hold one or more sensors; and
wherein the one of a plurality of different sized coupling members includes one or more windows for the one or more sensors.

5 23. The sensor housing of claim 22, wherein the main body and the at least one connecting member are each made of a biocompatible material.

24. The sensor housing of claim 22, wherein the one or more sensors are one or more transducers and the one or more windows are acoustically transparent.

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25. An apparatus, comprising:
a sensor housing adapted for mounting one or more sensors;
two or more coupling members, wherein each of the two or more coupling members includes one or more windows for the one or more sensors; and

15 wherein the sensor housing is adapted to couple with the two or more coupling members to accommodate various sized conduits.

26. The apparatus of claim 25, further comprising a closure mechanism coupleable to at least one of the two or more coupling members to provide a positive closure.

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27. The apparatus of claim 26, wherein the sensor housing, the two or more coupling members, and the closure mechanism are each made of a biocompatible material.

28. The apparatus of claim 27, wherein the two or more coupling members are made of a biodegradable material.

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29. The apparatus of claim 25, wherein the one or more sensors are transducers and the one or more windows are acoustically transparent.

30. A method for measuring flow in a lumen defined by a conduit with an outer diameter and cross sectional shape, comprising:
- 5 selecting a coupling member, the coupling member conforming to the outer diameter and the cross sectional shape of the conduit;
- assembling the coupling member and a sensor housing; and
- positioning the coupling member and sensor housing adjacent the conduit.
31. The method of claim 30, further comprising:
- 10 selecting a closure mechanism, the closure mechanism conforming to the outer diameter and cross sectional shape of the conduit; and
- attaching the closure mechanism to the coupling member to encircle the conduit.
32. The method of claim 30, further comprising:
- 15 positioning the coupling member using a positioning tool.
33. The method of claim 31, further comprising:
- positioning the coupling member using a positioning tool.
34. An apparatus, comprising:
- 20 one or more components of a flow sensor
- positioning elements for positioning the one or more components of the flow sensor, the positioning elements providing a positive grip on the one or more components for placement and positioning of the one or more components.
- 25 35. The apparatus of claim 34, wherein the positioning elements are dimples.
36. The apparatus of claim 34, wherein the positioning elements are grooves.

37. The apparatus of claim 34, wherein the positioning elements are slots.

38. The apparatus of claim 34, wherein the positioning elements are on a sensor housing.

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39. The apparatus of claim 34, wherein the positioning elements are on a coupling member.

40. The apparatus of claim 34, wherein the positioning elements are on a closure mechanism.

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